

## Application for Architectural Review Board

**\* This application must be filled out completely and signed before submittals are placed on the ARB agenda.**

The purpose of Architectural Review Board shall be to two-fold; to develop architectural and design guidelines for the City of Ladue in accordance with section 110-70 and to apply those guidelines in reviewing projects within the City as to whether or not the project adheres to such guidelines.

### APPLICANT INFORMATION

Name of Applicant: Oasis Pools

Phone #: 618 655 9570

Email address of Applicant (for review comments): Sales@getoasis.com

### PROJECT PROPERTY INFORMATION

Address for proposed work: 2 Kington Manor Dr. St. Louis, MO

If this ARB application is amending a project that is currently under construction, list permit #: \_\_\_\_\_

Zoning District: C Parcel ID # (St. Louis county tax record): 18L 610098

DESCRIPTION OF PROPOSED PROJECT: Outdoor Kitchen

### Additional Information:

- Professionally sealed plans are not required for ARB review.
- Plans for projects involving alterations and repairs, which do not affect the outward appearance of a building, and existing decks, fences, window replacements and roofing shingle replacements shall not require approval of the Architectural Review Board.
- Revised plans with any changes predicated by the ARB will need to be submitted with the building permit application to the Department of Planning and Development with final trustee approval (if applicable.)
- Projects approved by ARB should be submitted for building permits within 180 days or the ARB approval may become void.

**By signing this application, you acknowledge that by submitting an incomplete application, your petition will not be added to the meeting agenda.**

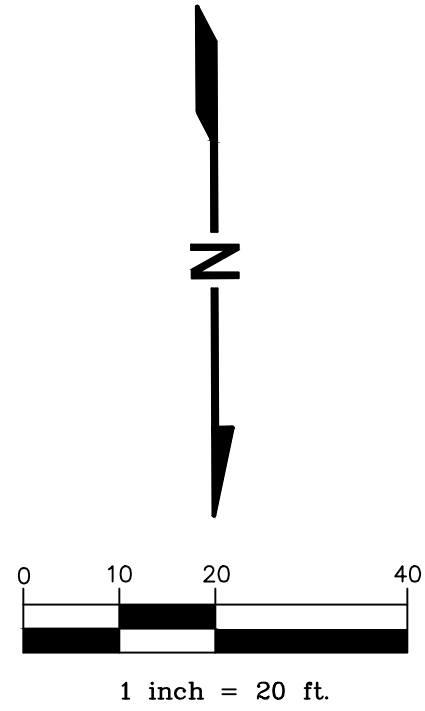
X Mah U. H. Date: 1/24/23

*\* This application and review for City of Ladue building permitted purposes only. Please be aware of any additional covenants and indentures which may be recorded with your subdivision. Approval of this ARB proposal does not waive any other permit or other authorization by the City that may be required for you to fully complete your proposed project.*

LEGEND

DESCRIPTION	SYMBOL
EXISTING MAJOR CONTOUR	—500—
EXISTING MINOR CONTOUR	—502—
PROPOSED MAJOR CONTOUR	—504—
PROPOSED MINOR CONTOUR	—502—
PROPOSED SPOT ELEVATION	+502.00
EXISTING SANITARY SEWER	—○—
EXISTING STORM SEWER	—□—
PROPOSED SANITARY SEWER	—●—
PROPOSED STORM SEWER	—■—
EXISTING WATERLINE	—W—
EXISTING FIRE HYDRANT	⦿
EXISTING GAS LINE	—G—
EXISTING OVERHEAD UTILITY	—OU—
USE IN PLACE	(U.I.P.)
ADJUST TO GRADE	(A.T.G.)
TO BE REMOVED	(T.B.R.)
TO BE REMOVED AND REPLACED	(T.B.R.&R.)
TO BE REMOVED AND RELOCATED	(T.B.R.&REL.)

FF = FINISHED FLOOR ELEVATION  
TF = TOP OF FOUNDATION  
BF = BASEMENT FLOOR ELEVATION  
GF = GARAGE FLOOR ELEVATION  
CO = CLEAN OUT  
DS = DOWNSPOUT  
  
TW = FINISHED GRADE AT TOP OF WALL  
BW = FINISHED GRADE AT BOTTOM OF WALL

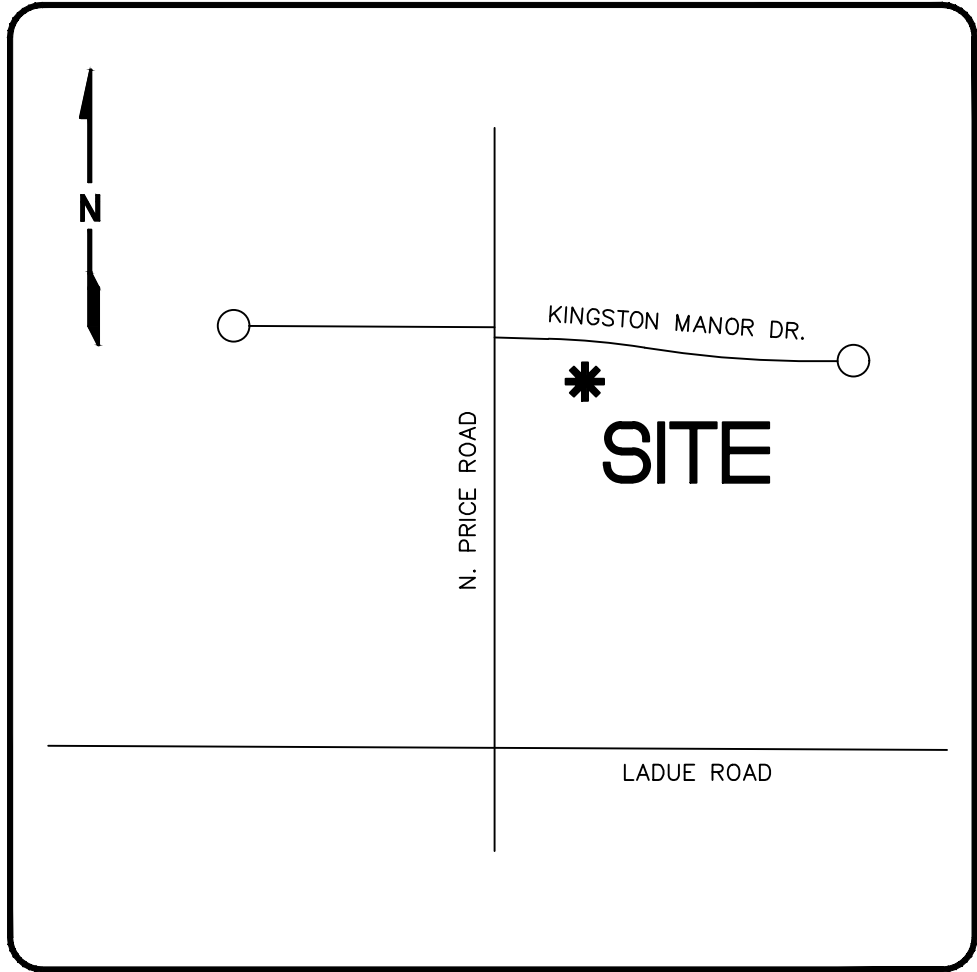


# 2 KINGSTON MANOR DRIVE

A TRACT OF LAND BEING LOT 2 OF "KINGSTON MANOR", A SUBDIVISION  
RECORDED IN P.B. 62, PAGE 29 OF THE ST. LOUIS COUNTY RECORDS,  
CITY OF LADUE, ST. LOUIS COUNTY, MISSOURI

PROJECT DATA

LOCATOR NO. : 18L610098  
ADDRESS : 2 KINGSTON MANOR DRIVE  
LADUE, MO 63124  
OWNER : MARK & AMY REED  
AREA OF TRACT : 30,038 S.F. (0.690± AC.)  
PRESENT ZONING : 'C'  
SCHOOL DISTRICT : LADUE  
FIRE DISTRICT : LADUE  
WATERSHED(S) : DEER CREEK  
FIRM PANEL : 29189C0213K  
UTILITIES : MISSOURI-AMERICAN WATER CO.  
METRO. ST. LOUIS SEWER DIST.  
SPIRE GAS COMPANY  
AT&T TELEPHONE COMPANY  
AMEREN UE



LOCATION MAP

N.T.S.

YARD SETBACK REQUIREMENTS

MINIMUM BUILDING SETBACKS: FRONT = 50'  
SIDE = 12.6' (10% LOT WIDTH)  
REAR = 30' (PRIMARY STRUCTURE)  
REAR = 10' (ACCESSORY STRUCTURE)

GREENSPACE

MINIMUM REQUIRED = 65%  
TOTAL SITE COVERAGE PROPOSED CONDITIONS = 8,101 S.F.  
GREENSPACE TO BE PROVIDED = 73%  
(30,038 - 8,101) / 30,038 = 73%

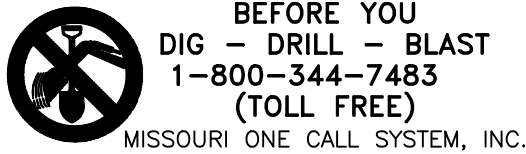
SITE COVERAGES

YARD	PROPOSED COVERAGE	TOTAL AREA	% COVERAGE	MAXIMUM ALLOWABLE
FRONT	894	6,619	13.5%	30%
REAR	2,594	17,228	15.1%	30%
SIDE (WEST)	1,035	4,528	22.9%	25%
SIDE (EAST)	0	0	0	25%

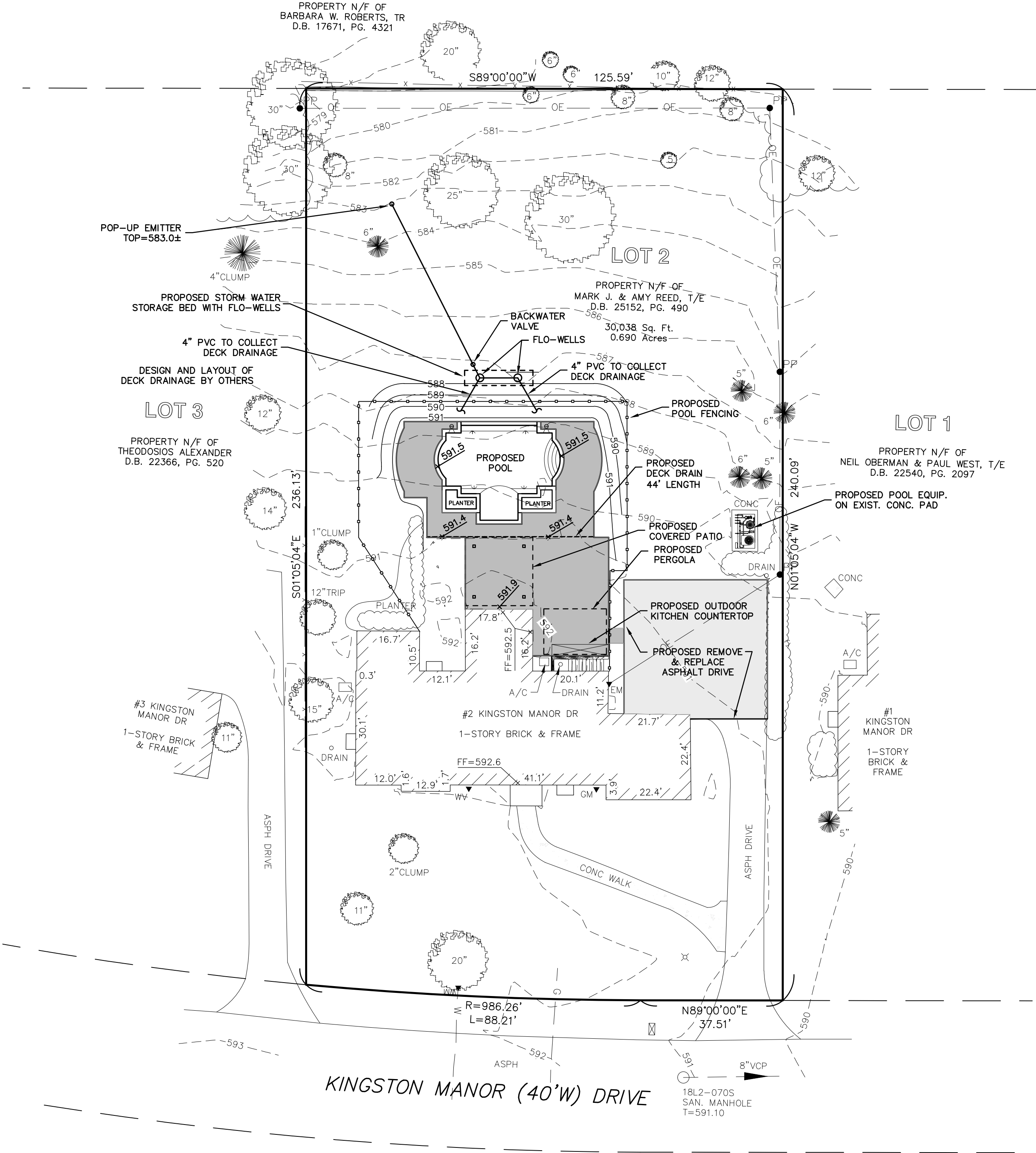
GENERAL NOTES

- BOUNDARY AND TOPOGRAPHIC INFORMATION PROVIDED BY SABUR SURVEYING.
- GRADING AND STORMWATER DRAINAGE TO CONFORM TO THE STANDARDS OF THE CITY OF LADUE, MSD, AND MO&NR.
- SLOPES SHALL NOT EXCEED 3 HORIZONTAL TO 1 VERTICAL.
- SANITARY SEWERS TO MEET THE CITY OF LADUE AND M.S.D. STANDARDS ON SITE.
- ALL UTILITY SERVICES SHALL BE UNDERGROUND.
- UTILITY INFORMATION PER SURVEY PROVIDED AND AVAILABLE RECORDS.
- ALL PROPOSED IMPROVEMENTS SHALL BE CONSTRUCTED TO THE CITY OF LADUE STANDARDS.
- THE FINISHED GRADE LEVEL AT THE BUILDING TO BE MINIMUM OF 6" BELOW TOP OF FOUNDATION FOR MASONRY AND 8" FOR FRAME AND BRICK VENEER.
- THE GROUND IMMEDIATELY ADJACENT TO THE FOUNDATION SHALL BE SLOPED AWAY FROM THE BUILDING AT A SLOPE OF NOT LESS THAN ONE UNIT VERTICAL IN 12 UNITS HORIZONTAL (1:12) FOR A MINIMUM DISTANCE OF 8 FEET MEASURED PERPENDICULAR TO THE FACE OF THE WALL.
- ALL GRADING SHALL CONFORM TO THE APPROVED GRADING PLAN.
- FOUNDATION FOOTINGS SHALL BE CONSTRUCTED SO AS TO MAINTAIN A 2'6" DEPTH OF EARTH COVER OR AS REQUIRED BY THE LOCAL BUILDING CODES.
- BUILDING DIMENSIONS ARE TO BE VERIFIED WITH ARCHITECT PRIOR TO EXCAVATION OR CONSTRUCTION.
- ALL SEWER CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH THE METROPOLITAN ST. LOUIS SEWER DISTRICT STANDARD CONSTRUCTION SPECIFICATIONS FOR SEWER AND DRAINAGE FACILITIES, 2009

NOTICE TO CONTRACTOR



UNDERGROUND FACILITIES, STRUCTURES AND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE RECORDS. THEREFORE, THE LOCATIONS OF ANY UNDERGROUND FACILITIES SHOWN HEREON MUST BE CONSIDERED APPROXIMATE. PRIOR TO BEGINNING WORK ON THE SITE, IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE THE EXACT LOCATION OF THESE FACILITIES, ALONG WITH ANY IN EXISTENCE THAT ARE NOT SHOWN; TO VERIFY THEIR LOCATION BOTH HORIZONTALLY AND VERTICALLY (IN ACCORDANCE WITH THE REQUIREMENTS OF THE RESPECTIVE UTILITY/FACILITY OWNER); AND TO VERIFY THAT MINIMUM CLEARANCES AND COVER REQUIREMENTS BETWEEN THE EXISTING FACILITIES AND THE PROPOSED WORK WILL BE MET.



PROPOSED SITE PLAN

Vance Engineering, Inc.  
10537 Lackland Road  
St. Louis, MO 63114  
P: 314.427.1800

2 KINGSTON MANOR DRIVE

POOL SITE PLAN

PRELIMINARY

10/3/22  
MICHAEL CLAY VANCE, P.E.  
E-25616

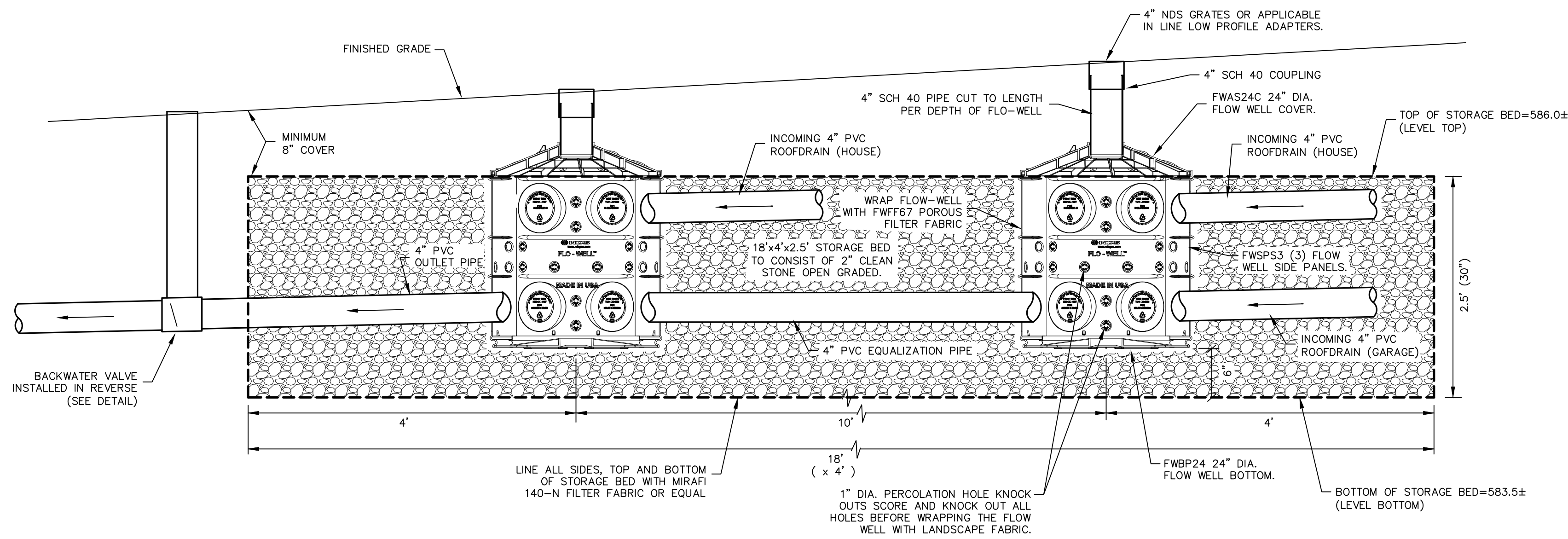
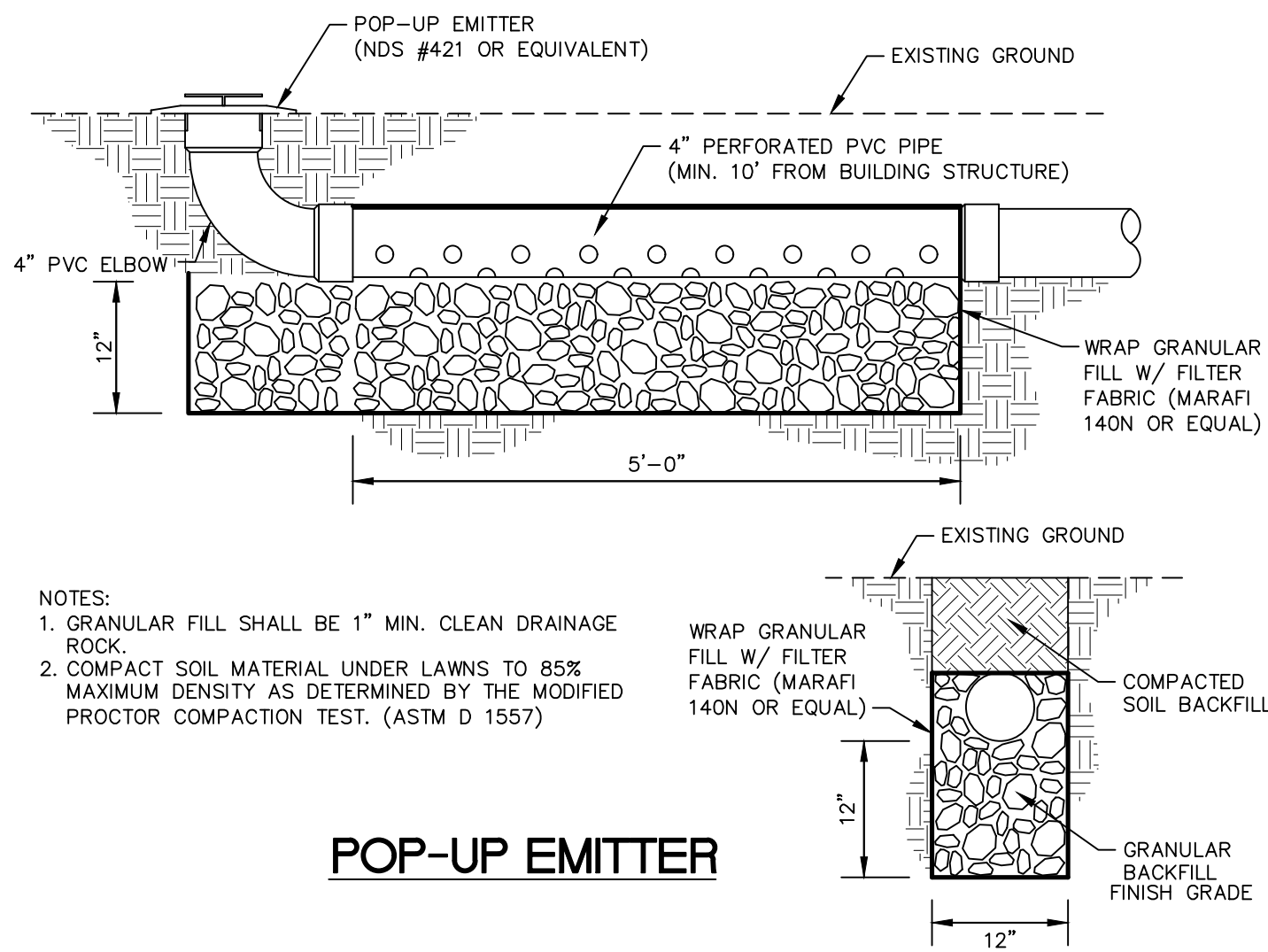
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## STORM WATER STORAGE BED with NDS FLO-WELL

SECTION VIEW (1" = 1')

NOTE: CONTRACTOR SHALL REFER TO AND FOLLOW THE INSTALLATION PROCEDURES PROVIDED IN THE MANUFACTURERS INSTALLATION GUIDE.

## STORM WATER CALCULATIONS

DESIGN STORM: 15-YEAR 20-MINUTE  
3.54 CFS/AC. IMPERVIOUS SURFACE  
1.70 CFS/AC. PERVIOUS SURFACE

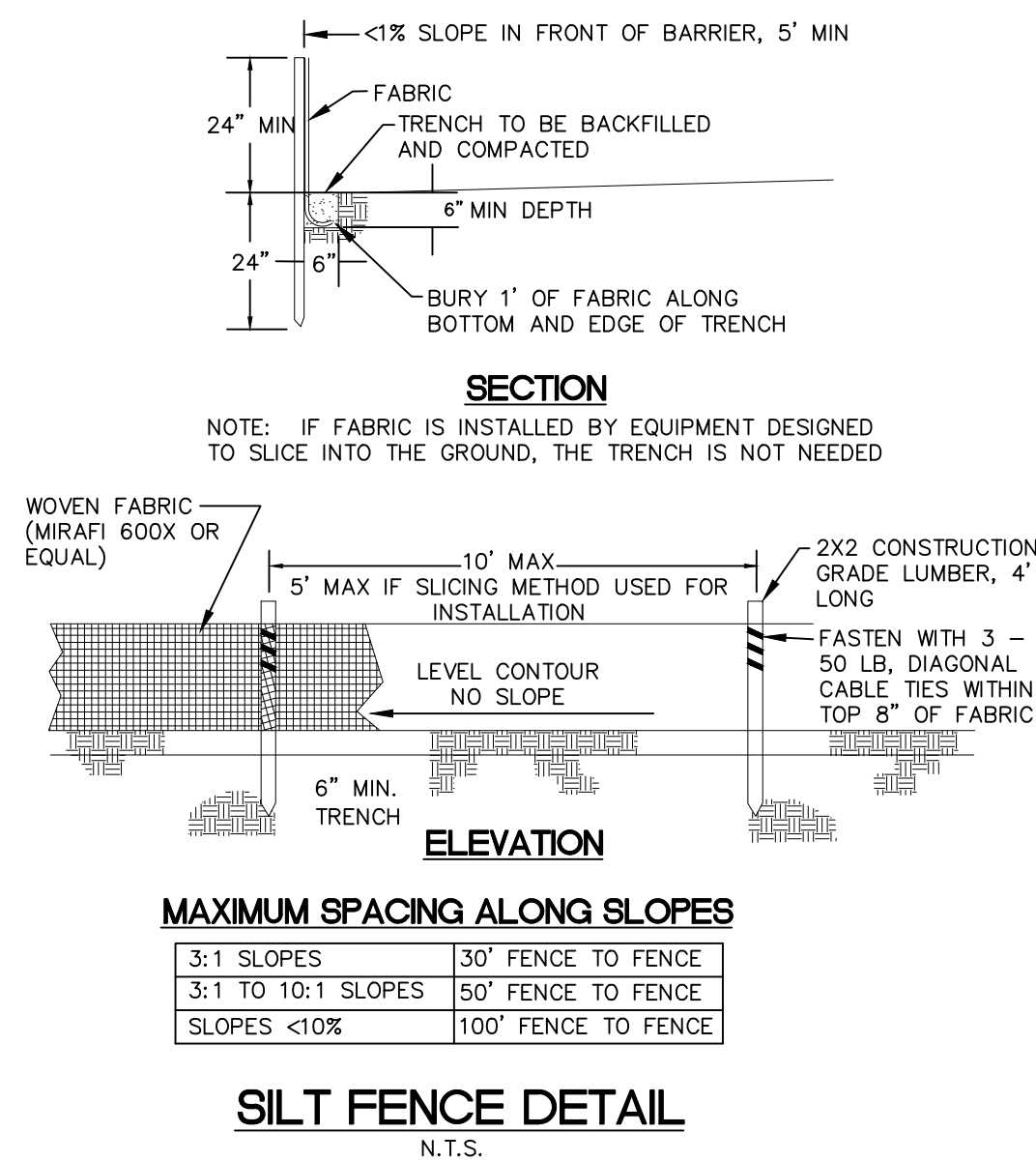
TOTAL IMPERVIOUS SURFACE, EXISTING CONDITIONS: 6,703 S.F.  
TOTAL IMPERVIOUS SURFACE, PROPOSED CONDITIONS: 8,101 S.F.

NET INCREASE IN SITE IMPERVIOUS SURFACE: 1,398 S.F.

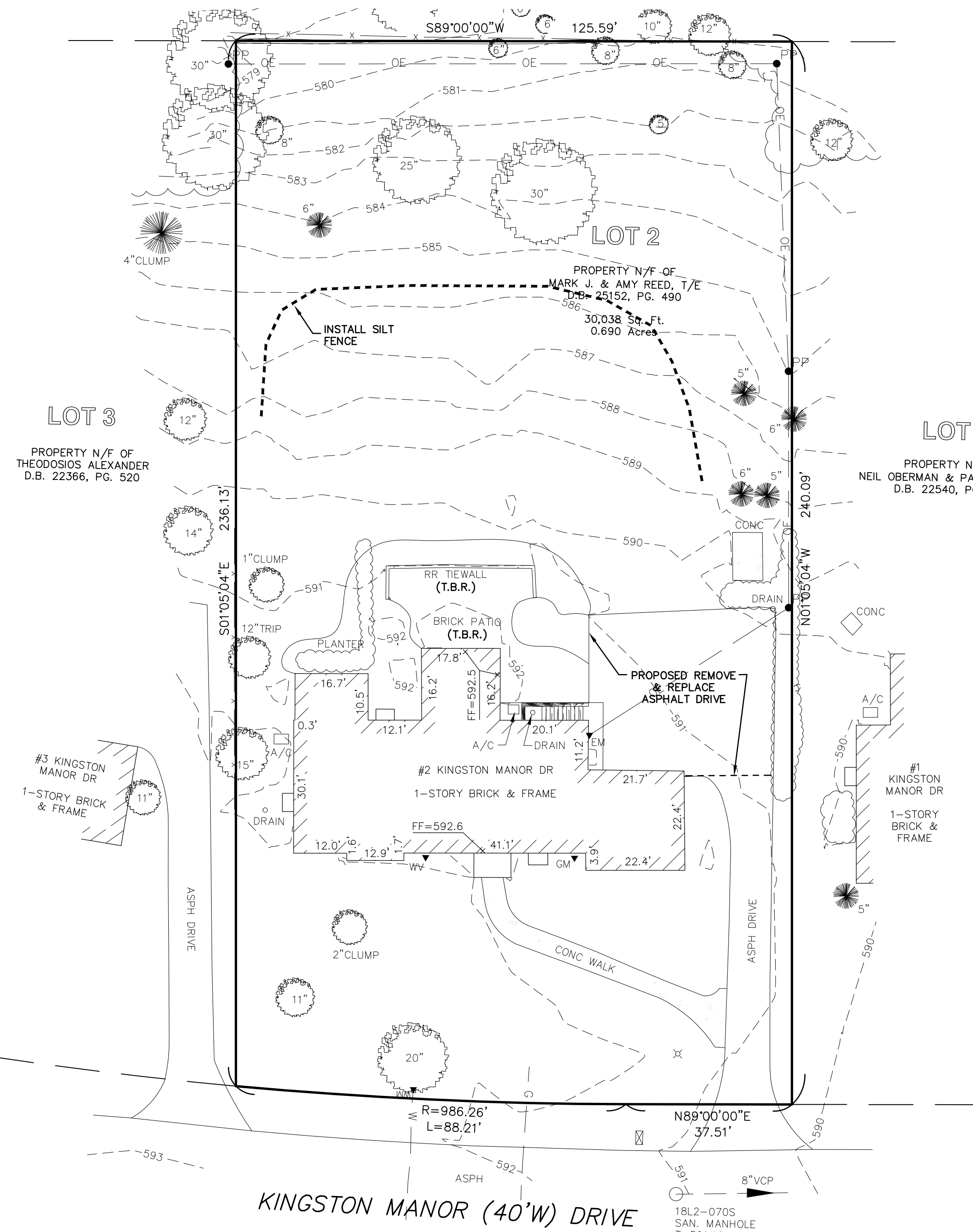
INCREASE IN SITE RUNOFF:  
 $1,398 \times (3.54 - 1.70) / 43,560 = 0.06$  CFS

RUNOFF VOLUME:  $0.06 \text{ CFS} \times 60 \text{ S/MIN.} \times 20 \text{ MIN.} = 72 \text{ C.F.}$

VOLUME DETAINED IN PROPOSED STORM WATER STORAGE BED:  
 $18' \times 4' \times 2.5' \times 40\% \text{ VOID SPACE} = 72 \text{ C.F.}$



- NOTES:
1. SEE PLAN FOR INITIAL INSTALLATION LOCATION.
  2. INSTALL SILT FENCE PRIOR TO DISTURBANCE OF NATURAL VEGETATION AND AT APPROPRIATE INTERVALS DURING CONSTRUCTION OF FILL SLOPES.
  3. INSPECT & MAINTAIN FENCE AFTER EVERY RAINSTORM OR MINIMUM 2 WEEK INTERVALS DURING DRY PERIODS.
  4. SILT IS TO BE REMOVED WHEN DEPTH ALONG THE FENCE REACHES 12" OR 1/2 THE FENCE HEIGHT.
  5. REPAIR / REPLACE TORN OR CLOGGED FABRIC, LOOSE FABRIC, BROKEN POSTS, ETC. TO MAINTAIN INTERGRITY OF SILT FENCE THROUGHOUT CONSTRUCTION.
  6. STABILIZE ANY AREAS SUSCEPTIBLE TO UNDERMINING AS SOON AS THEY ARE NOTICED.
  7. EXTEND/ADD FENCE AS NECESSARY TO MAINTAIN/PROVIDE ADEQUATE PROTECTION.
  8. UPON ESTABLISHMENT OF ADEQUATE VEGETATION, REMOVE FENCE, REGRADE AND VEGETATE TRENCH AREA.



## BACKWATER VALVES



### Quick View Backwater Valves with Extension Kit to Premade Lengths

Socket Valve with complete Extension Assembly in precut lengths.

Valve x Extension Size <sup>1</sup>	Socket Valve With Extension	Valve x Extension Size <sup>1</sup>	Socket Valve With Extension	Pressure Rating
2 x 12HT	S27SP-120	4 x 12HT	S47SP-120	43 psi (100 feet of head)
2 x 16HT	S27SP-160	4 x 16HT	S47SP-160	
2 x 20HT	S27SP-200	4 x 20HT	S47SP-200	
2 x 24HT	S27SP-240	4 x 24HT	S47SP-240	
2 x 36HT	S27SP-360	4 x 36HT	S47SP-360	
2 x 48HT	S27SP-480	4 x 48HT	S47SP-480	
3 x 12HT	S37SP-120	6 x 12HT	S67SP-120	
3 x 16HT	S37SP-160	6 x 16HT	S67SP-160	
3 x 20HT	S37SP-200	6 x 20HT	S67SP-200	
3 x 24HT	S37SP-240	6 x 24HT	S67SP-240	
3 x 36HT	S37SP-360	6 x 36HT	S67SP-360	
3 x 48HT	S37SP-480	6 x 48HT	S67SP-480	

<sup>1</sup> - Size designates nominal valve size x extension height (HT-top of valve to top of extension, inches).

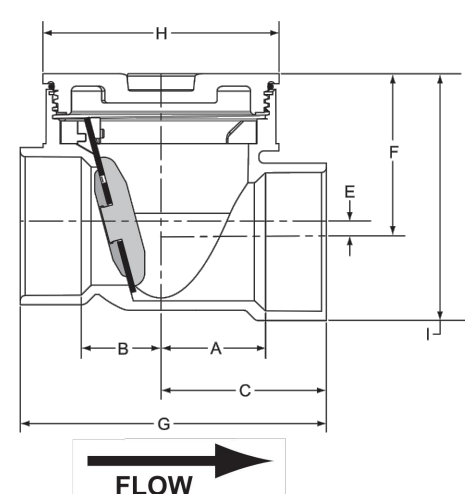
### Quick View Service Access Extension Kit Only In Premade Lengths

Extension Assembly in precut lengths. Use existing valve top Access Plug.

Size <sup>1</sup>	Premade Extension	Size <sup>1</sup>	Premade Extension	Pressure Rating
2 x 12HT	SAEK-020-120	4 x 12HT	SAEK-040-120	43 psi (100 feet of head)
2 x 16HT	SAEK-020-160	4 x 16HT	SAEK-040-160	
2 x 20HT	SAEK-020-200	4 x 20HT	SAEK-040-200	
2 x 24HT	SAEK-020-240	4 x 24HT	SAEK-040-240	
2 x 36HT	SAEK-020-360	4 x 36HT	SAEK-040-360	
2 x 48HT	SAEK-020-480	4 x 48HT	SAEK-040-480	
3 x 12HT	SAEK-030-120	6 x 12HT	SAEK-060-120	
3 x 16HT	SAEK-030-160	6 x 16HT	SAEK-060-160	
3 x 20HT	SAEK-030-200	6 x 20HT	SAEK-060-200	
3 x 24HT	SAEK-030-240	6 x 24HT	SAEK-060-240	
3 x 36HT	SAEK-030-360	6 x 36HT	SAEK-060-360	
3 x 48HT	SAEK-030-480	6 x 48HT	SAEK-060-480	

<sup>1</sup> - Size designates nominal valve size x extension height (HT-top of valve to top of extension, inches). All extension kits can be cut shorter in the field for custom fits.

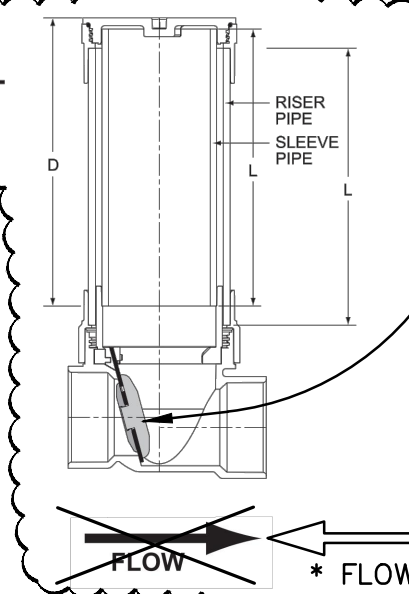
#### STANDARD VALVE



#### Standard Valve Dimensions (Inches)

Size	A	B	C	E	F	G	H	I
2	1-13/16	1-3/4	2-5/8	5/16	3-1/4	5-9/32	4-3/16	4-9/16
3	2-5/8	2	4-3/16	13/32	4-1/8	7-3/4	6	6-1/8
4	3-5/8	3-3/4	5-7/16	23/32	5-7/16	10-15/16	8-1/4	7-15/16
6	4-3/4	4-5/8	7-3/4	13/16	7-3/16	15-3/8	11-1/4	10-13/16

#### VALVE WITH EXTENSION KIT



#### Valve with Extension Kit Dimensions (Inches)

HEIGHT-D	Valve Size			
	2	3	4	6
	L	L	L	L
12	10-3/4	10-7/8	10-1/4	10-1/4
16	14-3/4	14-7/8	14-1/4	14-1/4
20	18-3/4	18-7/8	18-1/4	18-1/4
24	22-3/4	22-7/8	22-1/4	22-1/4
36	34-3/4	34-7/8	34-1/4	34-1/4
48	46-3/4	46-7/8	46-1/4	46-1/4

D = Top of plug Standard Valve to top of plug with Extension

Note: Riser Pipe & Sleeve Pipe are the same length.

VALVE TO FUNCTION AS OUTFALL ORIFICE. SEE OUTFALL ORIFICE NOTE.

OUTFALL ORIFICE NOTE:

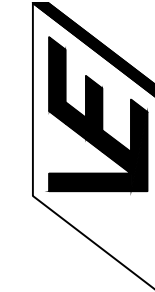
- HOLES TO BE DRILLED IN THE FLAPPER VALVE TO SERVE AS THE OUTFALL ORIFICE. FLAPPER VALVE TO HAVE FOUR (4) 1/2" DIA. HOLES DRILLED EVENLY SPACED. REMOVE ANY RUBBER FROM THE FLAPPER AROUND WHERE THE HOLES ARE DRILLED. BACKWATER VALVE NOT TO BE INSTALLED UNTIL AFTER FIRST RAINFALL AFTER STORAGE BASIN HAS BEEN CONSTRUCTED.

\* INSTALL IN REVERSE DIRECTION FROM MANUFACTURER'S DETAIL

THE WORK PREPARED BY OR UNDER THE AUTHORITY OF VANCE ENGINEERING, INC. IS HEREBY CERTIFIED TO BE TRUE AND CORRECT. VANCE ENGINEERING, INC. IS NOT RESPONSIBLE FOR ANY ERRORS OR OMISSIONS IN THIS DOCUMENT. VANCE ENGINEERING, INC. IS NOT RESPONSIBLE FOR ANY ERRORS OR OMISSIONS IN THIS DOCUMENT. VANCE ENGINEERING, INC. IS NOT RESPONSIBLE FOR ANY ERRORS OR OMISSIONS IN THIS DOCUMENT.

**Mark & Amy Reed**  
2 Kingston Manor Drive  
Ladue, MO 63124

**Vance Engineering, Inc.**  
10537 Lackland Road  
St. Louis, MO 63114  
P: 314.427.1800



VANCE ENGINEERING, INC.  
MISSOURI STATE CERTIFICATE OF AUTHORITY NO. 2003022194

2 KINGSTON MANOR DRIVE

POOL SITE PLAN

PRELIMINARY

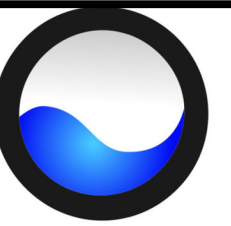
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E-25616  
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OASIS POOLS  
EXPERTS IN OUTDOOR LIVING



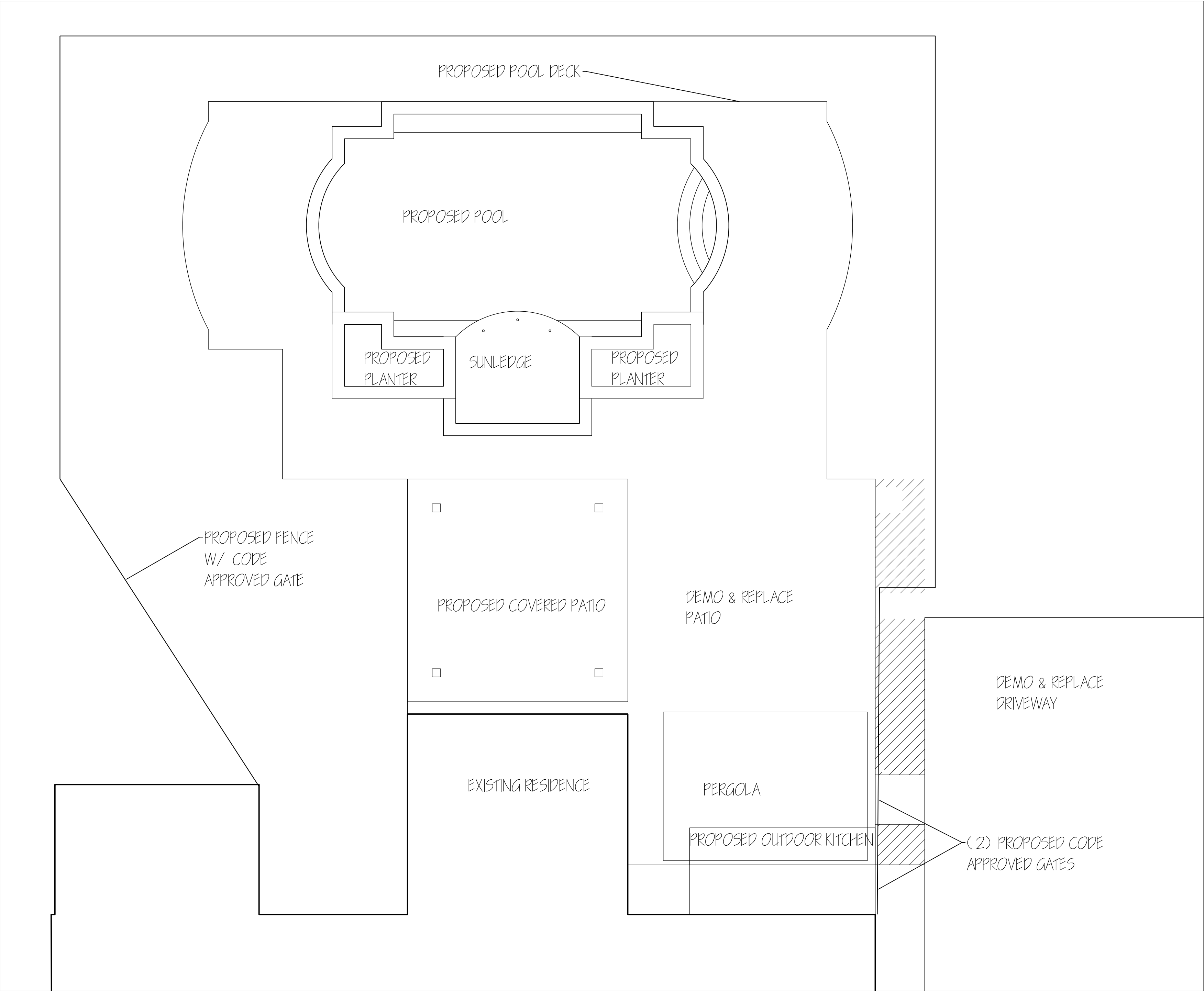
REED RESIDENCE  
2 KINGSTON MANOR DR  
SAINT LOUIS, MO 63124



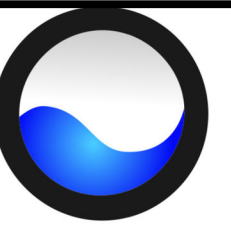
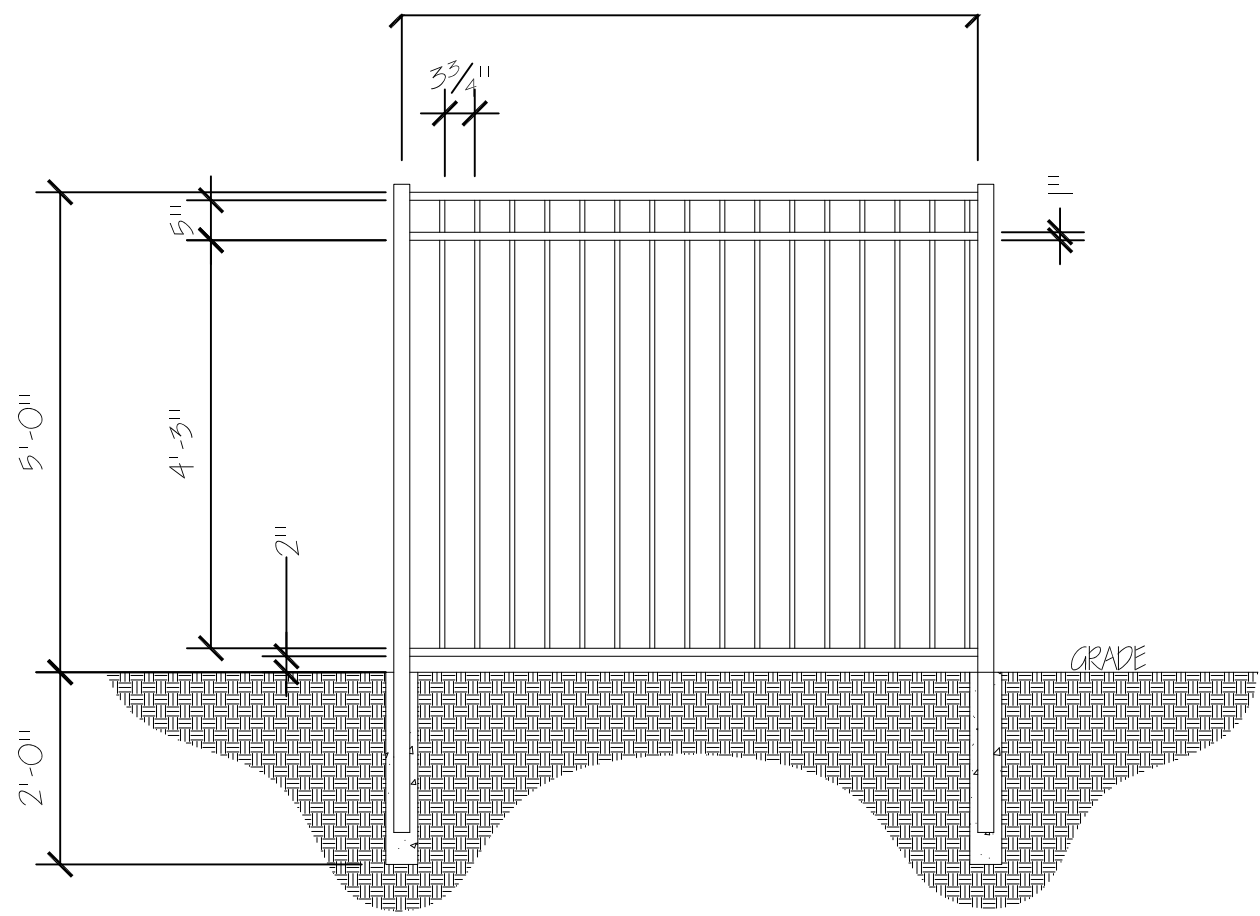
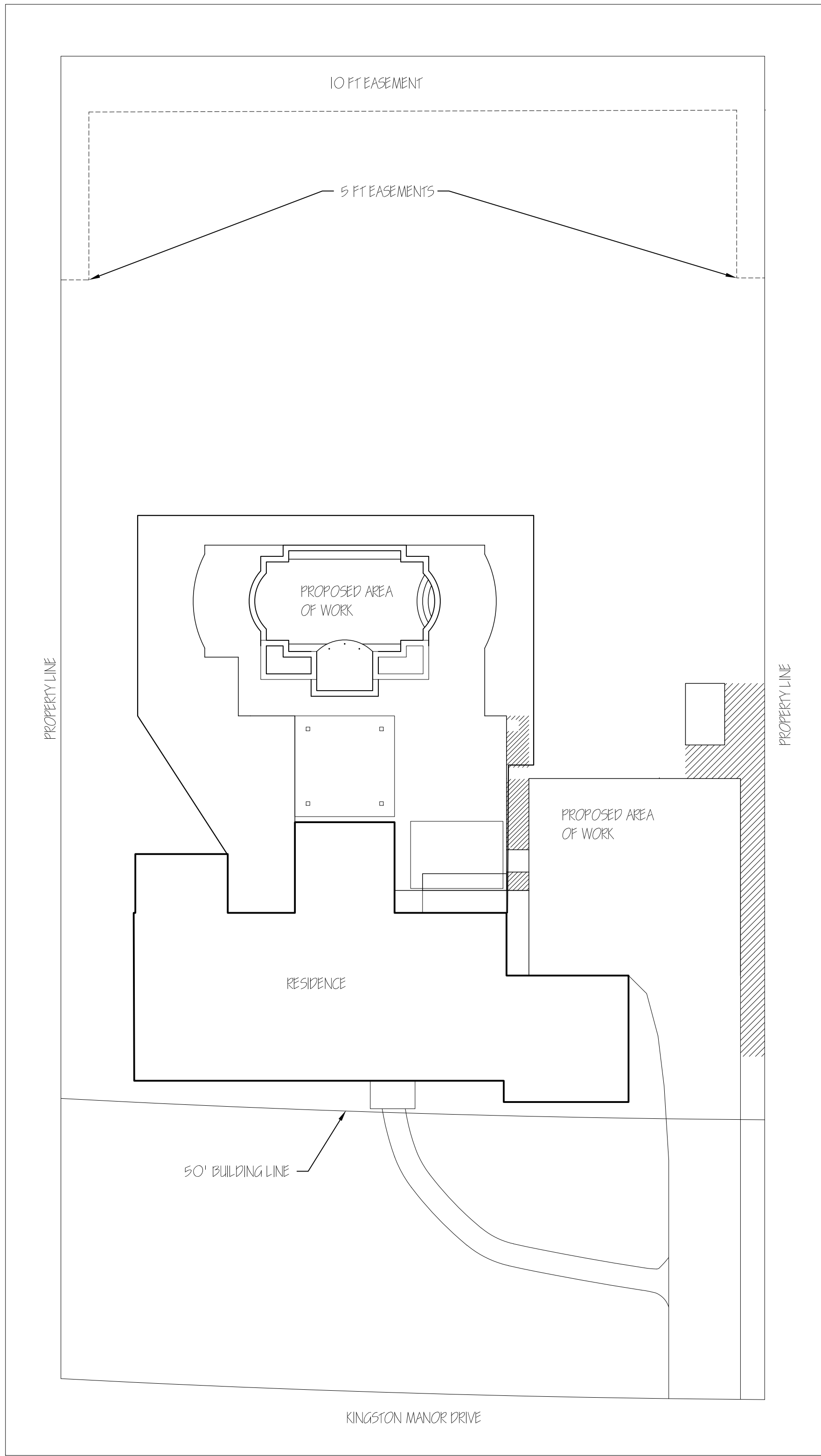
DATE: 07/05/2022  
SCALE: AS INDICATED  
DESIGNED BY: V. BOYEN I.V.  
SALESMAN:

SITE PLAN

S-1



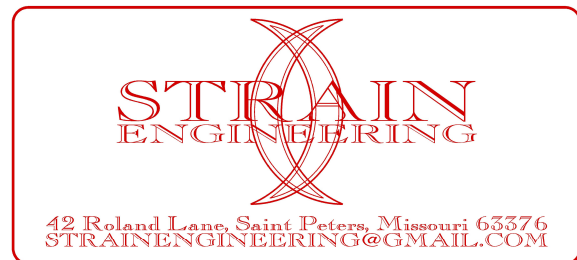
① SITE  
3/16" = 1'-0"



OASIS POOLS  
EXPERTS IN OUTDOOR LIVING



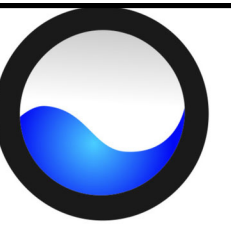
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SITE PLAN

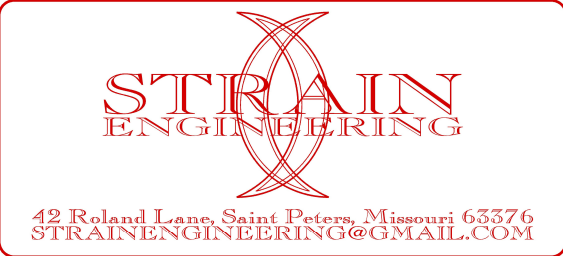
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OASIS POOLS  
EXPERTS IN OUTDOOR LIVING



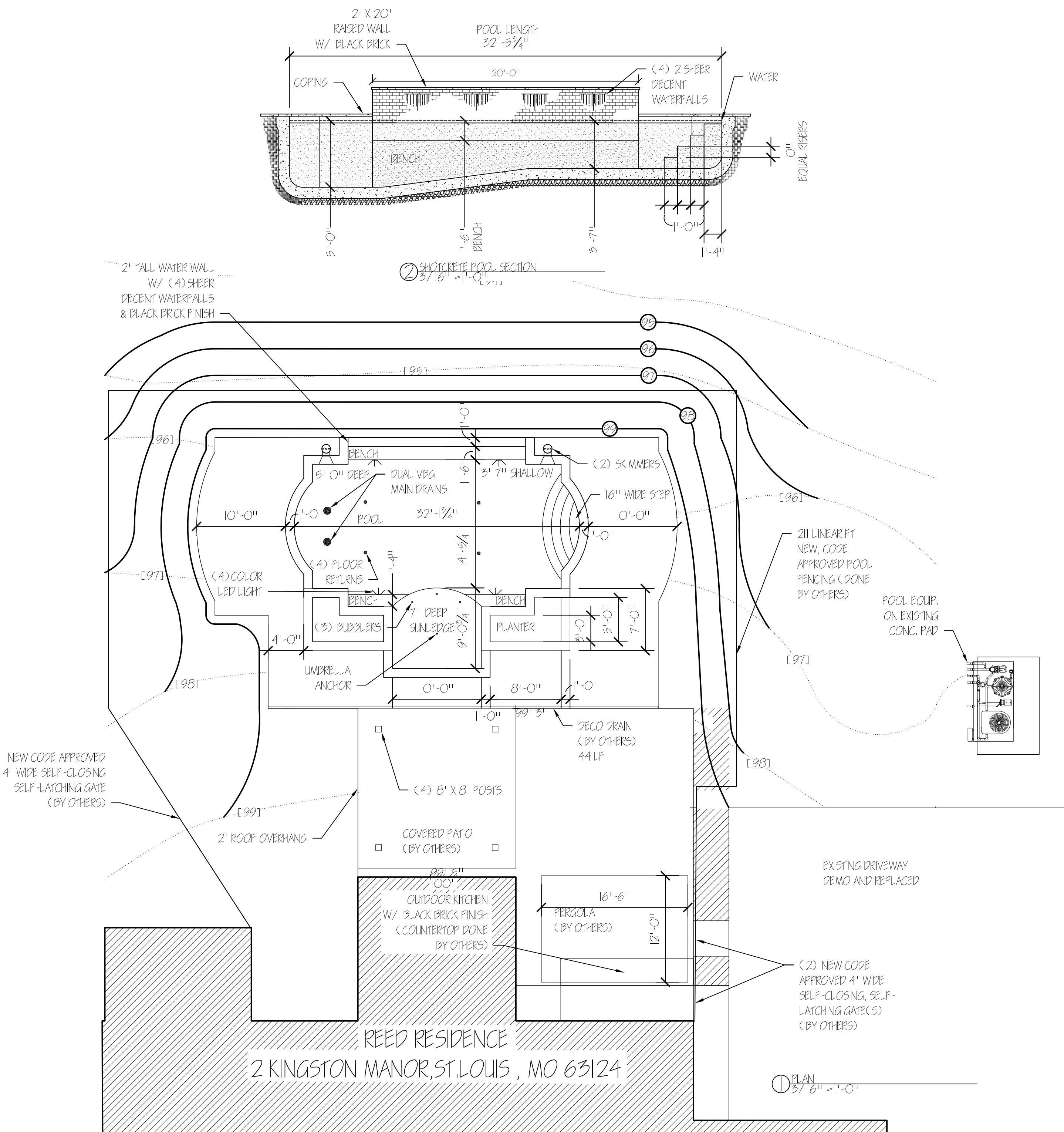
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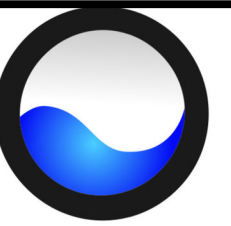


DATE: 07/05/2022  
SCALE: AS INDICATED  
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SALESMAN:

POOL PLAN

A1.00

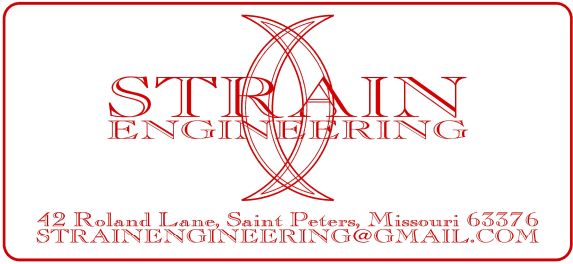




OASIS POOLS  
EXPERTS IN OUTDOOR LIVING



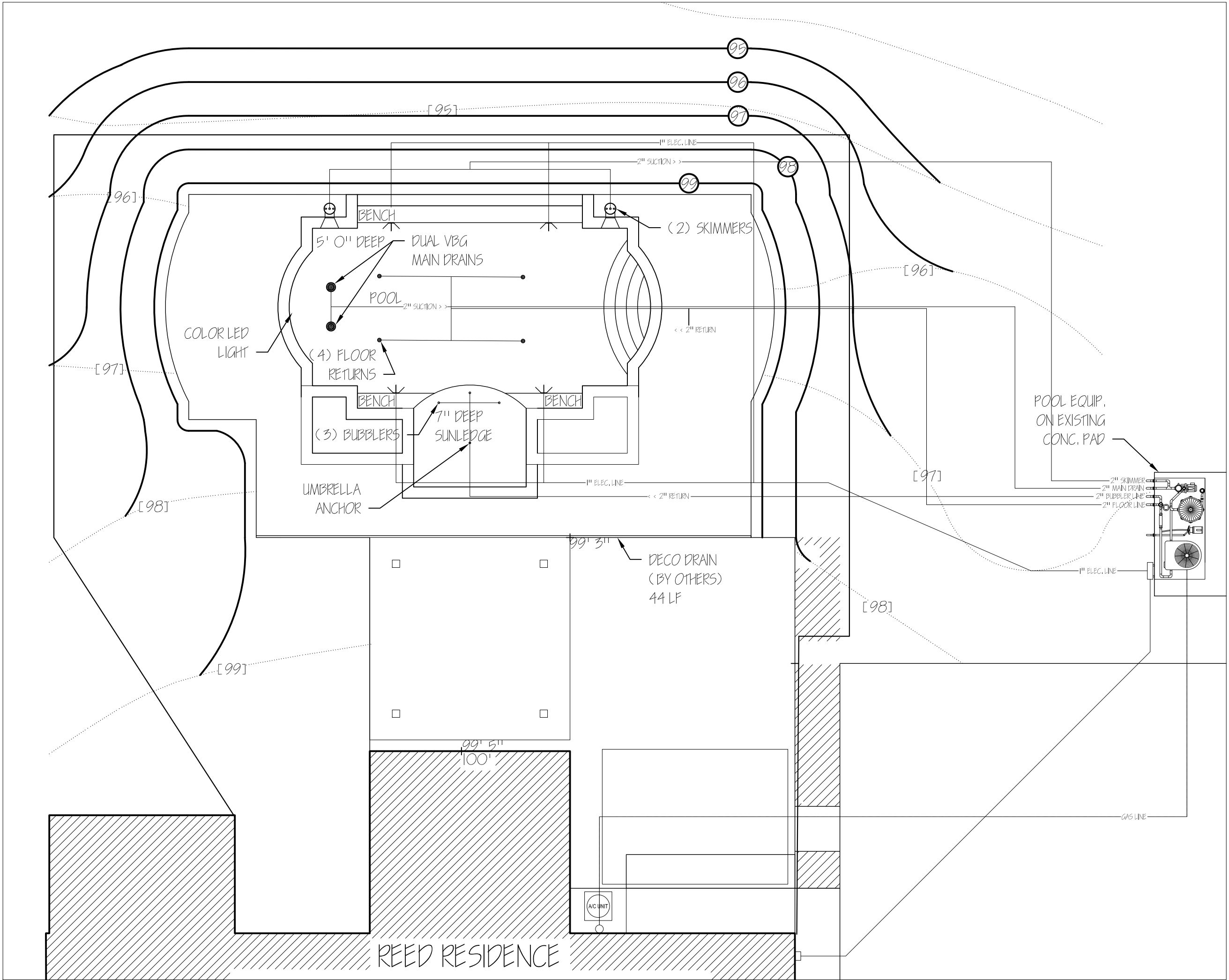
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SAINT LOUIS, MO 63124



DATE: 07/05/2022  
SCALE: AS INDICATED  
DESIGNED BY: V. BOYEN I.V.  
SALESMAN:

MECH PLAN

A1.01



① PLAN  
3/16" = 1'-0"

TYPICAL NOTES AND SPECIFICATIONS FOR OASIS POOLS INSTALLATIONS:

GENERAL AND TYPICAL NOTES FOR OASIS POOLS:

**WALL SLOPES:**  
TO A DEPTH UP TO 2 FT. 9 IN. FROM THE TOP, THE WALL SLOPE SHALL NOT BE MORE THAN ONE UNIT HORIZONTAL IN FIVE UNITS VERTICAL (1:5)

**FLOOR SLOPES:**  
THE SLOPE OF THE FLOOR ON THE SHALLOW SIDE OF THE TRANSITION POINT SHALL NOT EXCEED ONE UNIT VERTICAL TO SEVEN UNITS HORIZONTAL (1:7). THE TRANSITION POINT BETWEEN SHALLOW AND DEEP WATER SHALL NOT BE MORE THAN 4 FEET DEEP.

**STEPS AND LADDERS:**  
A. AT LEAST ON ENTRY/ EXIT SHALL BE PROVIDED FORM THE SHALLOW AREA OF THE POOL. TWO ENTRIES/ EXITS, ONE FROM THE SHALLOW AREA AND ONE FROM THE DEEP AREA, ARE REQUIRED FROM POOLS WITH A DEPTH OF WATER EQUALING OR EXCEEDING 5'. POOLS WITH A DEEP AREA EQUALING OR EXCEEDING 5' AND A WIDTH EXCEEDING 30', SHALL HAVE AN ENTRY/ EXIT ON EACH SIDE OF THE DEEP AREA IN ADDITION TO THE ENTRY/ EXIT IN THE SHALLOW AREA

B. STEP TREADS MUST HAVE A MINIMUM HORIZONTAL DEPTH OF 8 INCHES AND A MINIMUM UNOBSTRUCTED SURFACE AREA OF 240 SQUARE INCHES. RISERS CAN HAVE A MAXIMUM HEIGHT OF 12 INCHES. TREADS OF STEPS AND LADDERS SHALL HAVE SLIP-RESISTANT SURFACES. A MINIMUM OF ONE HANDRAIL, 1" TO 1 1/2" IN DIAMETER, IS REQUIRED TO SERVE A STAIR WITH A TREAD DEPTH OF 10". WHEN STAIRS ARE LOCATED IN WATER DEPTH OVER 48", THE LOWEST TREAD SHALL BE NO LESS THAN 48" BELOW THE DECK AND VISUALLY SET APART AND LOCATED OUTSIDE THE ALL OF THE POOL. STAIRS RECESSED INTO THE SIDEWALL OF THE POOL MAY BE CONSTRUCTED WITH TREAD DEPTH OF 5" AND A TREAD WIDTH OF 12". HANDRAILS, GRAB RAILS, OR HANDHOLDS ARE REQUIRED ON EACH SIDE OF A RECESSED STAIR.

C. LADDERS SHALL HAVE SLIP RESISTANT TREADS WITH A MINIMUM TREAD DEPTH OF 2" AND A UNIFORM HEIGHT BETWEEN LADDER TREADS OF A MINIMUM 7" AND A MAXIMUM OF 12". THE CLEAR DISTANCE BETWEEN THE LADDER HANDRAILS LOCATED ON BOTH SIDES OF THE LADDER SHALL BE A MINIMUM OF 17" AND A MAXIMUM OF 24".

D. STAIRS FOR DECKS AND POOL AREA ACCESS OUTSIDE THE POOL BASIN SHALL HAVE A MAXIMUM RISER HEIGHT OF 8 1/4". A MINIMUM HORIZONTAL TREAD DEPTH OF 9" MEASURED FROM NOSING TO NOSING, AND PROPER HANDRAILS/ GUARDRAILS.

**HANDHOLDS:**  
HANDHOLDS SHALL BE PROVIDED 8" ON CENTER AROUND THE POOL EDGE IN ANY AREA WHERE THE WATER DEPTH EXCEEDS 4 FEET. A HANDHOLD IS DECKING, COPING, LEDGE, ROCKS, ETC. WITHIN 12" OF THE WATERLINE. LADDERS, STAIRS AND UNDERWATER SEATS AND LEDGES ARE ALSO CONSIDERED A HANDHOLD.

UNDERWATER SEATS, BENCHES AND SWIM-OUTS:  
UNDERWATER SEATS, BENCHES AND SWIM-OUTS, WHEN PROVIDED, SHALL BE LOCATED AT A MAXIMUM DEPTH BELOW OF 20" BELOW THE WATERLINE. THEY SHALL BE VISUALLY SET APART AND LOCATED OUTSIDE OF THE REQUIRED MINIMUM WATER SURFACE SHAPE IF THE POOL IS DESIGNED FOR USE WITH DIVING EQUIPMENT. SEE SECTION 5.3.3 OF ANSI/ NSPI-5-2009 FOR THE DETAILS ON THE MINIMUM WATER SURFACE SHAPE.

WATER, PIPING, VELOCITY, CIRCULATION, AND SURFACE CLEANING:  
A. ALL SWIMMING POOLS SHALL BE PROVIDED WITH A RE-CIRCULATING SKIMMING DEVICE OR OVERFLOW GUTTERS TO REMOVE SCUM AND FOREIGN MATTER FORM THE SURFACE OF THE WATER. WHERE SKIMMERS ARE USED FOR PRIVATE POOLS, THERE SHALL BE AT LEAST ON SKIMMING DEVICE FOR EACH 800 SQUARE FEET OF SURFACE AREA OR FRACTION THEREOF. THE EQUIPMENT SHALL BE SIZED TO PROVIDE A TURNOVER OF THE POOL WATER AT LEAST ONCE EVERY 12 HOURS. THE SYSTEM SHALL BE DESIGNED TO GIVE THE PROPER TURNOVER RATE BASED ON THE MANUFACTURER'S SPECIFIED MAXIMUM FLOW RATE OF THE FILTER. IN CLEAN MEDIA CONDITION OF THE FILTER.

B. A CIRCULATION SYSTEM CONSISTING OF PUMP, PIPING, RETURN INLETS AND SUCTION OUTLETS, FILTERS AND OTHER NECESSARY EQUIPMENT SHALL BE PROVIDED FOR COMPLETE CIRCULATION OF WATER THROUGH ALL PARTS OF THE SWIMMING POOL. THE EQUIPMENT SHALL BE ADEQUATE SIZE TO TURNOVER THE ENTIRE SWIMMING POOL WATER CAPACITY AT LEAST ONCE EVERY 12 HOURS. WATER CLARITY SHALL BE MAINTAINED. CLARITY IS A FUNCTION OF PROPER FILTRATION AND MAINTENANCE OF PROPER CHEMICAL OPERATIONAL PARAMETERS.

C. WATER VELOCITY IN BRANCH PIPING SERVING A MINIMUM OF 2 SUCTION OUTLETS SHALL BE DESIGNED FOR A MAXIMUM OF 3 FEET PER SECOND. THIS WILL RESULT IN A MAXIMUM VELOCITY OF 6 FEET PER SECOND IF 1 OF THE 2 SUCTION OUTLETS IS BLOCKED. THE WATER VELOCITY BETWEEN THE TEE OF THE BRANCH PIPING AND THE PUMP SHALL NOT EXCEED 8 FEET PER SECOND. THE TEE SERVING THE BRANCH PIPING BETWEEN 2 OR MORE SUCTION OUTLETS ON A PUMP SYSTEM SHALL BE LOCATED BETWEEN THE SUCTION OUTLETS ON A PUMP SYSTEM SHALL BE LOCATED BETWEEN THE SUCTION OUTLETS SO THE HEAD LOSS IN EACH BRANCH RUN IS ESSENTIALLY EQUAL.

**D. ENTRAPMENT PROTECTION:**  
THIS SECTION SHALL ONLY APPLY TO POOLS WITH SUBMERGED SUCTION OUTLETS. THIS GUIDELINE PROMOTES THE USE OF SKIMMERS AND GUTTERS AS THE SOLE MEANS OF RETURNING SURFACE WATER TO THE PUMP FOR RE-CIRCULATION. ALL SUBMERGED OUTLET COVERS/ GRATES SHALL COMPLY WITH ASME/ ANSI A 112.19.8-2007 AND BE LABELED AS SUCH OR LABELED "VGB 2008". SUBMERGED SUCTION OUTLETS AND PIPING SHALL BE INSTALLED IN ACCORDANCE WITH ANSI/ APSP 7-2006. A SINGLE UNBLOCK-ABLE SUBMERGED SUCTION OUTLETS AND PIPING SHALL BE INSTALLED PER SECTION 5.5 OF THIS STANDARD. TWO SUBMERGED SUCTION OUTLETS PIPED IN PARALLEL TO A SINGLE SUCTION LINE SHALL B LOCATED 3 FEET APART (MEASURED CENTER TO CENTER FORM THE SUCTION PIPES) OR BE LOCATED ON SEPARATE PLANES.

**POOL PERIMETER HARDSCAPES:**  
CURBS OR SIDEWALKS (IF PROVIDED) AROUND ANY SWIMMING POOL SHALL HAVE A SLIP-RESISTANT SURFACE FOR A WIDTH OF NOT LESS THAN 1 FOOT AT THE EDGE OF THE IN-GROUND POOL. AND SHALL BE SO ARRANGED AS TO PREVENT RETURN OF SURFACE WATER TO THE POOL. THE PERIMETER SURFACE (PAVED, CONCRETE OR UNPAVED SURFACES) EXTENDING OUT FROM THE EDGE OF THE POOL MEASURED 3' HORIZONTALLY FORM THE INSIDE FACE-OF WALL OF THE IN-GROUND POOL SHALL BE BONDED IN ACCORDANCE WITH SECTION 680.26 (B) (2) (A) OR (2) (B) OF THE NATIONAL ELECTRIC CODE (NEC) 2008.

TYPICAL SITE NOTES FOR OASIS POOLS:

**TEMPORARY BARRIERS AROUND EXCAVATIONS FOR PRIVATE IN-GROUND POOLS:**  
IN ACCORDANCE WITH THE PROVISIONS OF SECTION 109.8 OF THE ST. LOUIS COUNTY BUILDING CODE, AND IN THE INTEREST OF THE PUBLIC'S HEALTH, SAFETY, AND WELFARE, A TEMPORARY FENCE SHALL BE CONSTRUCTED AROUND EXCAVATIONS FOR PRIVATE IN-GROUND SWIMMING POOLS. THIS BARRIER MUST REMAIN IN PLACE ONCE EXCAVATION BEGINS, AND UNTIL AN APPROVED PERMANENT BARRIER IS INSTALLED. BOTH THE TEMPORARY AND PERMANENT BARRIERS MUST COMPLY WITH SECTION AG105 OF THE 2009 INTERNATIONAL RESIDENTIAL CODE.

**625.3 DRAINING AND DISCHARGE:**  
SWIMMING POOL DRAINS AND OVERFLOW DRAINS CAN BE CONNECTED TO A STORM SEWER OR DISCHARGED TO A NATURAL WATERCOURSE. SUCH "CLEAN" WATERS SHALL NOT BE DISCHARGED TO THE SANITARY SEWER SYSTEM. ANY LIQUID WASTE GENERATED FROM CLEANING POOLS SHALL BE PREVENTED BY APPROPRIATE MEANS FROM BEING DISCHARGED TO THE STORM SEWER OR A NATURAL WATERCOURSE. SWIMMING POOL FILTER BACKWASH WATERS SHALL BE DISCHARGED TO A SANITARY SEWER SYSTEM BECAUSE OF THE POLLUTANTS CONTAINED IN SUCH WATER. CARE MUST BE TAKEN TO ENSURE THAT THE RATE OF BACKWASH DOES NOT EXCEED THE HYDRAULIC CAPACITY OF THE SANITARY SEWER AND THIS CREATE BACKUP PROBLEMS FOR DOWNSTREAM USERS OF THE SYSTEM.

**GRADES:**  
SURROUNDING GRADES SHALL BE SUCH AS TO PREVENT SURFACE WATER FORM ENTERING THE POOL. NO ALTERATION OF THE EXISTING STORM WATER DRAINAGE PATTERN OF THE AREA IS PERMITTED WITHOUT THE PRIOR APPROVAL OF THE DEPARTMENT OF HIGHWAYS AND TRAFFIC AND PUBLIC WORKS.

**DISCHARGE WATER:**  
THE POOL SHALL BE CONSTRUCTED AND EQUIPPED TO ALLOW THE POOL TO BE COMPLETELY EMPTIED OF WATER. ALL DISCHARGED WATER MUST BE TO AN APPROVED LOCATION SO AS NOT TO CREATE NUISANCE TO ADJOINING PROPERTY. CONNECTION TO THE SANITARY SEWER SYSTEM IS NOT PERMITTED.

**WATER SUPPLY:**  
THE HOSE BE USED FOR FILLING THE POOL. SPA, OR HOT TUB SHALL BE PROTECTED BY EITHER AN APPROVED BACK FLOW PREVENTION DEVICE (VACUUM BREAKER) OR AN AIR GAP BETWEEN THE FILLING HOSE AND POOL. INSTALLATION OF AN APPROVED BACK FLOW PREVENTION DEVICE ON THE SUPPLY PIPING MUST BE DONE BY A LICENSED MASTER PLUMBER.

CODE AND STANDARDS SOURCES AND BODIES:

-2018 INTERNATIONAL SWIMMING POOL AND SPA CODE (ISPSO)

ANSI/ APSP/ ICC-15 2011  
AMERICAN NATIONAL STANDARD FOR RESIDENTIAL SWIMMING POOL AND SPA ENERGY EFFICIENCY

**SAINT LOUIS COUNTY**  
RESIDENTIAL BUILDING CODES, SWIMMING POOL CONSTRUCTION CODES, ELECTRICAL CODES, MECHANICAL CODES

**CITY OF LADUE**  
RESIDENTIAL BUILDING CODES, SWIMMING POOL CONSTRUCTION CODES, ELECTRICAL CODES, MECHANICAL CODES

TYPICAL ELECTRICAL NOTES FOR OASIS POOLS:

**ELECTRICAL:**  
THIS INSTALLATION SHALL COMPLY WITH ARTICLE 680 OF THE 2008 NATIONAL ELECTRICAL WORK WILL BE DONE BY A LICENSED ELECTRICAL CONTRACTOR IN ACCORDANCE WITH ANY AND ALL LOCAL, MUNICIPAL, AND/ OR COUNTY ORDINANCES. ALL ELECTRICAL WIRING WILL BE DONE IN ACCORDANCE WITH LOCAL ELECTRICAL CODES. REFER TO ARTICLE 680 OF THE NATIONAL ELECTRIC CODE FOR ADDITIONAL INFORMATION REGARDING ELECTRICAL METALLIC EQUIPMENT IN AND AROUND SWIMMING POOLS

ALL OVERHEAD WIRES SHALL BE A MINIMUM OF 10' HORIZONTALLY AWAY FROM THE EDGE OF THE POOL OR 22.5' VERTICALLY ABOVE THE WATER LEVEL. UNDERGROUND WIRING IS NOT PERMITTED UNDER THE POOL OR WITHIN 5' OF THE POOL WALL. IF SPACE LIMITATIONS PREVENT WIRING FROM BEING RE-ROUTED BEYOND 5', WIRING MAY BE PERMITTED IF INSTALLED BY A METHOD LISTED IN ARTICLE 680

NO LIGHTING SHALL BE LOCATED CLOSER THAN 5' FROM THE EDGE OF THE POOL. ALL LIGHTING WITHIN 10' OF THE EDGE OF THE POOL SHALL BE GROUND FAULT CIRCUIT INTERRUPTER PROTECTED.

A GROUND FAULT CIRCUIT INTERRUPTER MUST BE INSTALLED IN THE ELECTRICAL SYSTEM FOR UNDERWATER LIGHTING FIXTURES OR CORD CONNECTED PUMPS.

RECEPTACLE(S) SUPPLYING WATER PUMP OR LOADS DIRECTLY RELATED TO CIRCULATION AND THE SANITARY SYSTEM SHALL BE LOCATED BETWEEN 6' AND 10' FROM THE EDGE OF THE POOL. THIS RECEPTACLE(S) MUST BE THE SINGLE, LOCKING AND GROUNDING TYPE AND BE PROTECTED BY A GFCI.

ALL METAL PARTS OF THE POOL, STRUCTURAL REINFORCING STEEL AND ELECTRICAL EQUIPMENT ASSOCIATED WITH THE POOL SHALL BE BONDED AND GROUNDIED IN ACCORDANCE WITH NEC ARTICLE 680, USING #8 SOLID COPPER WIRE. IN ADDITION, THE PERIMETER WALKING SURFACE (UNPAVED SURFACES AS WELL AS POURED CONCRETE AND OTHER TYPES OF PAVED SURFACES) WITHIN 3 FEET OF THE INSIDE WALL OF ALL POOLS REGARDLESS OF THE METHOD OF POOL CONSTRUCTION, SHALL BE BONDED AS SPECIFIED IN NEC ARTICLE 680 SECTION 26, USING #8 SOLID COPPER WIRE.

INSTALL UNBROKEN INSULATED COPPER WIRE FORM POWER PANEL TO WATER MAIN AND FROM POWER PANEL THROUGH TIME CLOCK TO PUMPS AND MOTORS

WHERE GROUNDING CLAMPS ARE USED, THEY SHALL BE OF THE APPROVED TYPE.

LOCATE DECK BOX IN WELL DRAINED AREA AT LEAST 5 FEET FROM THE INSIDE EDGE OF THE POOL AND 4" MINIMUM ABOVE THE TOP LIP OF THE COPING OR 8" ABOVE THE MAX WATER LEVEL IN THE POOL, WHICH EVER IS GREATER.

BOND MOTOR CASE TO BONDING OOP WITH #8 SOLID COPPER WIRE.

ALL ELECTRICAL EQUIPMENT, COMPONENTS, OR APPARATUSES SHALL BE UL LISTED AND IDENTIFIED FOR THE PURPOSE THEY ARE TO BE USED

ALL EQUIPOTENTIAL BONDING CABLE CONNECTIONS TO METAL ITEMS ARE TO BE MADE WITH #8 AWG SOLID COPPER WIRE PER NEC SECTION 680.26. THIS BONDING SYSTEM IS SEPARATE FORM THE ELECTRICAL GROUNDING SYSTEM, ALTHOUGH THE TWO MAY IN SOME PLACES CONNECT TO THE SAME ELECTRICAL ENCLOSURES.

AT LEAST (1) ONE 120 VOLT RECEPTACLE MUST BE INSTALLED BETWEEN 10 AND 20 FEET HORIZONTALLY FROM THE EDGE OF THE POOL AND NOT MORE THAN 6'-6" ABOVE THE DECK. ALL OTHER RECEPTACLES MUST BE LOCATED AT LEAST 10 FEET FROM THE POOL EDGE, EXCEPT FOR RECEPTACLE FOR THE PUMP OR OTHER LOADS DIRECTLY RELATED TO THE CIRCULATION OR SANITARY SYSTEM MUST BE THE SINGLE, LOCKING AND GROUNDING TYPE, AND TO BE PROTECTED WITH A GFCI. IT MAY BE LOCATED AT LEAST 6 FEET FORM THE EDGE OF THE POOL FOR CONNECTING THE PUMP WITH A MAXIMUM 3' CORD PROVIDED WITH PUMP. NO EXTENSION CORDS ARE ALLOWED.

WEATHERPROOF RECEPTACLE COVERS FOR POOL ASSOCIATED EQUIPMENT SHALL BE LISTED FOR WET LOCATIONS WHILE IN USE.

NO SOLDER-TYPE CONNECTORS OR LUGS ARE ALLOWED. COMPRESSION TYPE ARE REQUIRED.

**MECHANICAL:**  
POOL HEATING SYSTEMS AND GAS LONE INSTALLATIONS SHALL COMPLY WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS SECTIONS G2410 THROUGH G2424, AND SECTION G2441 OF THE 2009 INTERNATIONAL RESIDENTIAL CODE. ALL MECHANICAL WORK SHALL BE DONE BY A LICENSED CONTRACTOR AUTHORIZED TO DO MECHANICAL WORK.

AL ELECTRICAL, PLUMBING AN MECHANICAL WORK SHALL BE PERFORMED BY LICENSED AND BONDED ELECTRICAL CONTRACTORS, MASTER PLUMBERS, AND LICENSED CONTRACTORS AUTHORIZED TO DO MECHANICAL WORK. EACH CONTRACTOR SHALL ALSO SIGN THE APPLICATION FORM IN THE APPROPRIATE LOCATION. ALL SIGNATURES SHALL BE FURNISHED TO PUBLIC WORKS BEFORE THE PERMIT IS ISSUED

GENERAL BARRIER AND ENCLOSURE NOTES

AG105.2 OUTDOOR SWIMMING POOL, AN OUTDOOR SWIMMING POOL, INCLUDING AN IN-GROUND, ABOVE-GROUND OR ON-GROUND POOL, HOT TUB OR SPA SHALL BE SURROUNDED BY A BARRIER WHICH SHALL COMPLY WITH THE FOLLOWING:

1. THE TOP OF THE BARRIER SHALL BE AT LEAST 48 INCHES (1219 MM) ABOVE GRADE MEASURED ON THE SIDE OF THE BARRIER WHICH FACES AWAY FROM THE SWIMMING POOL. THE MAXIMUM VERTICAL CLEARANCE BETWEEN GRADE AND THE BOTTOM OF THE BARRIER SHALL BE 2 INCHES (51 MM) MEASURED ON THE SIDE OF THE BARRIER WHICH FACES AWAY FORM THE SWIMMING POOL. WHERE THE TOP OF THE POOL STRUCTURE IS ABOVE GRADE, SUCH AS AN ABOVE-GROUND POOL, THE BARRIER MAY BE AT GROUND LEVEL, SUCH AS THE POOL STRUCTURE, OR MOUNTED ON TOP OF THE POOL STRUCTURE. THE MAXIMUM CLEARANCE BETWEEN THE TOP OF THE POOL STRUCTURE AND THE BOTTOM OF THE BARRIER SHALL BE 4 INCHES (102 MM).

2. OPENINGS IN THE BARRIER SHALL NOT ALLOW PASSAGE OF A 4-INCH-DIAMETER (102 MM) SPHERE.

3. SOLID BARRIERS WHICH DO NOT HAVE OPENINGS, SUCH AS A MASONRY OR STONE WALL, SHALL NOT CONTAIN INDENTATIONS OR PROTRUSIONS EXCEPT FOR NORMAL CONSTRUCTION TOLERANCES AND TOOLED MASONRY JOINTS.

4. WHERE THE BARRIER IS COMPOSED OF HORIZONTAL AND VERTICAL MEMBERS AND THE DISTANCE BETWEEN THE TOPS OF THE HORIZONTAL MEMBERS IS LESS THAN 45 INCHES (1143 MM), THE HORIZONTAL MEMBERS SHALL BE LOCATED ON THE SWIMMING POOL SIDE OF THE FENCE. SPACING BETWEEN VERTICAL MEMBERS SHALL NOT EXCEED 4 INCHES (102 MM). WHERE THERE ARE DECORATIVE CUTOUTS WITHIN VERTICAL MEMBERS SPACING WITHIN THE CUTOUTS SHALL NOT EXCEED 1 1/2 INCHES (44 MM) IN WIDTH.

5. WHERE THE BARRIER IS COMPOSED OF HORIZONTAL AND VERTICAL MEMBERS AND THE DISTANCE BETWEEN THE TOPS OF THE HORIZONTAL MEMBERS IS 45 INCHES (1143 MM) OR MORE, SPACING BETWEEN VERTICAL MEMBERS SHALL NOT EXCEED 4 INCHES (102 MM). WHERE THERE ARE DECORATIVE CUTOUTS WITHIN VERTICAL MEMBERS, SPACING WITHIN THE CUTOUTS SHALL NOT EXCEED 1 1/2 INCHES (44 MM) IN WIDTH.

6. MAXIMUM MESH SIZE FOR CHAIN LINK FENCES SHALL BE A 2 1/2 INCH (57 MM) SQUARE UNLESS THE FENCE HAS SLATS FASTENED AT THE TOP OR THE BOTTOM WHICH REDUCE THE OPENINGS TO NOT MORE THAN 1 1/2 INCHES (44 MM)

7. WHERE THE BARRIER IS COMPOSED OF DIAGONAL MEMBERS, SUCH AS A LATTICE FENCE, THE MAXIMUM OPENING FORMED BY THE DIAGONAL MEMBERS SHALL NOT BE MORE THAN 1 1/2 INCHES (44 MM).

8. ACCESS GATES SHALL COMPLY WITH THE REQUIREMENTS OF SECTION AG105.2, ITEMS 1 THROUGH 7, AND SHALL BE EQUIPPED TO ACCOMMODATE A LOCKING DEVICE. PEDESTRIAN ACCESS GATES SHALL OPEN OUTWARD AWAY FORM THE POOL AND SHALL BE SELF-CLOSING AND HAVE A SELF-LATCHING DEVICE. GATES OTHER THAN PEDESTRIAN ACCESS GATES SHALL HAVE A SELF-LATCHING DEVICE. WHERE THE RELEASE MECHANISM OF THE SELF-LATCHING DEVICE IS LOCATED LESS THAN 54 INCHES (1372 MM) FROM THE BOTTOM OF THE GATE, THE RELEASE MECHANISM AND OPENINGS SHALL COMPLY WITH THE FOLLOWING:  
8.1. THE RELEASE MECHANISM SHALL BE LOCATED ON THE POOL SIDE OF THE GATE AT LEAST 3 INCHES (76 M) BELOW THE TOP OF THE GATE; AND

8.2 THE GATE AND BARRIER SHALL HAVE NO OPENING LARGER THAN 1/2 INCH (12.7 MM) WITHIN 18 INCHES (457 MM) OF THE RELEASE MECHANISM.

9. WHERE A WALL OF DWELLING SERVES AS PART OF THE BARRIER, ONE OF THE FOLLOWING CONDITIONS SHALL BE MET:

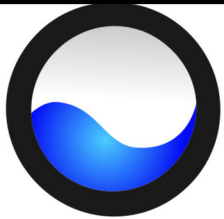
9.1. THE POOL SHALL BE EQUIPPED WITH A POWERED SAFETY COVER IN COMPLIANCE WITH ASTM F 1346; OR

9.2 DOORS WITH DIRECT ACCESS TO THE POOL THROUGH THAT WALL SHALL BE EQUIPPED WITH AN ALARM WHICH PRODUCES AN AUDIBLE WARNING WHEN THE DOOR AND/ OR ITS SCREEN IF PRESENT, ARE OPENED. THE ALARM SHALL BE LISTED AND LABELED IN ACCORDANCE WITH UL 2017. THE DEACTIVATION SWITCH(ES) SHALL BE LOCATED AT LEAST 54 INCHES (1372 MM) ABOVE THE THRESHOLD OF THE DOOR; OR

9.3 OTHER MEANS OF PROTECTION, SUCH AS SELF-CLOSING DOORS WITH SELF-LATCHING DEVICES, WHICH ARE APPROVED BY THE GOVERNING BODY, SHALL BE ACCEPTABLE AS LONG AS THE DEGREE OF PROTECTION AFFORDED IS NOT LESS THAN THE PROTECTION AFFORDED BY ITEM 9.1 OR 9.2 DESCRIBED ABOVE.

10. WHERE AN ABOVE-GROUND POOL STRUCTURE IS USED AS A BARRIER OR WHERE THE BARRIER IS MOUNTED ON TOP OF THE POOL STRUCTURE, AND THE MEANS OF ACCESS IS A LADDER OR STEPS, THEN THE LADDER OR STEPS SHALL BE SURROUNDED BY A BARRIER WHICH MEETS THE REQUIREMENTS OF SECTION AG105.2, ITEMS 1 THROUGH 9.

11. THERE SHALL BE A CLEAR ZONE OF AT LEAST 4 FEET (1219 MM) BETWEEN THE BARRIER FOR OR ON A POOL, SPA, OR HOT TUB AND ANY PERMANENT STRUCTURES OR POOL EQUIPMENT THAT CAN BE USED TO CLIMB THE BARRIER



OASIS POOLS  
EXPERTS IN OUTDOOR LIVING



DATE: 07/05/2022  
SCALE: AS INDICATED  
DESIGNED BY: V. BOYEN I.V.  
SALESMAN:

DETAILS SHEET-NOTES

D 1.00



OASIS POOLS

EXPERTS IN OUTDOOR LIVING  
BUILDER INFORMATION

OASIS POOLS  
1488 E EDWARDSVILLE RD  
WOOD RIVER, IL 62095  
618-655-9510



REED RESIDENCE  
2 KINGSTON MANOR  
ST. LOUIS, MO 63124

KMD TRUSTEES

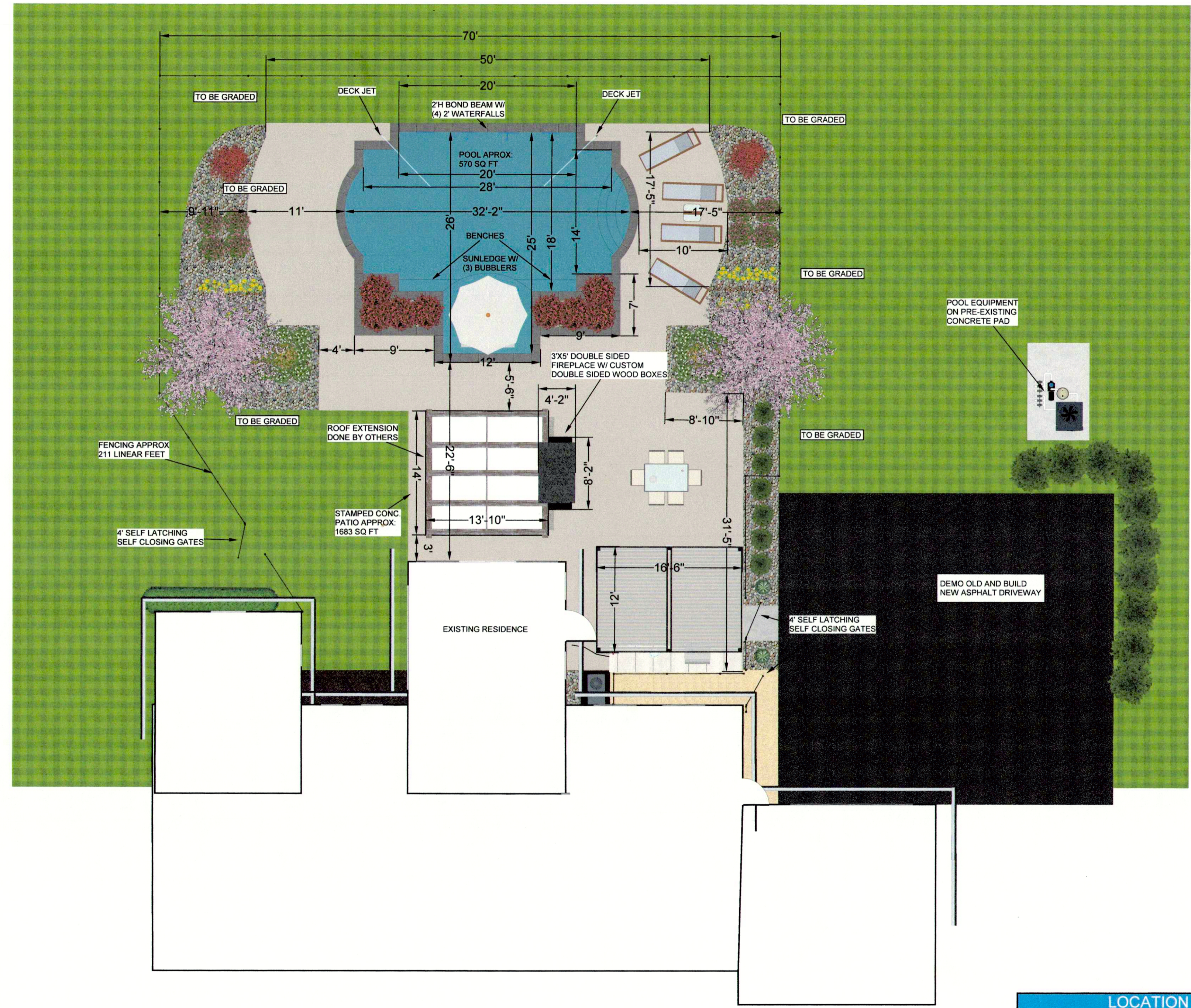
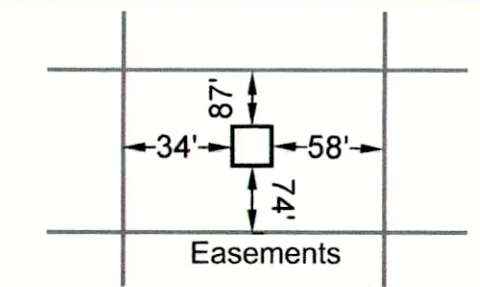
Linda Whitlaw 6/15/22  
C.I. 6/15/22  
Deemur 4/20/22

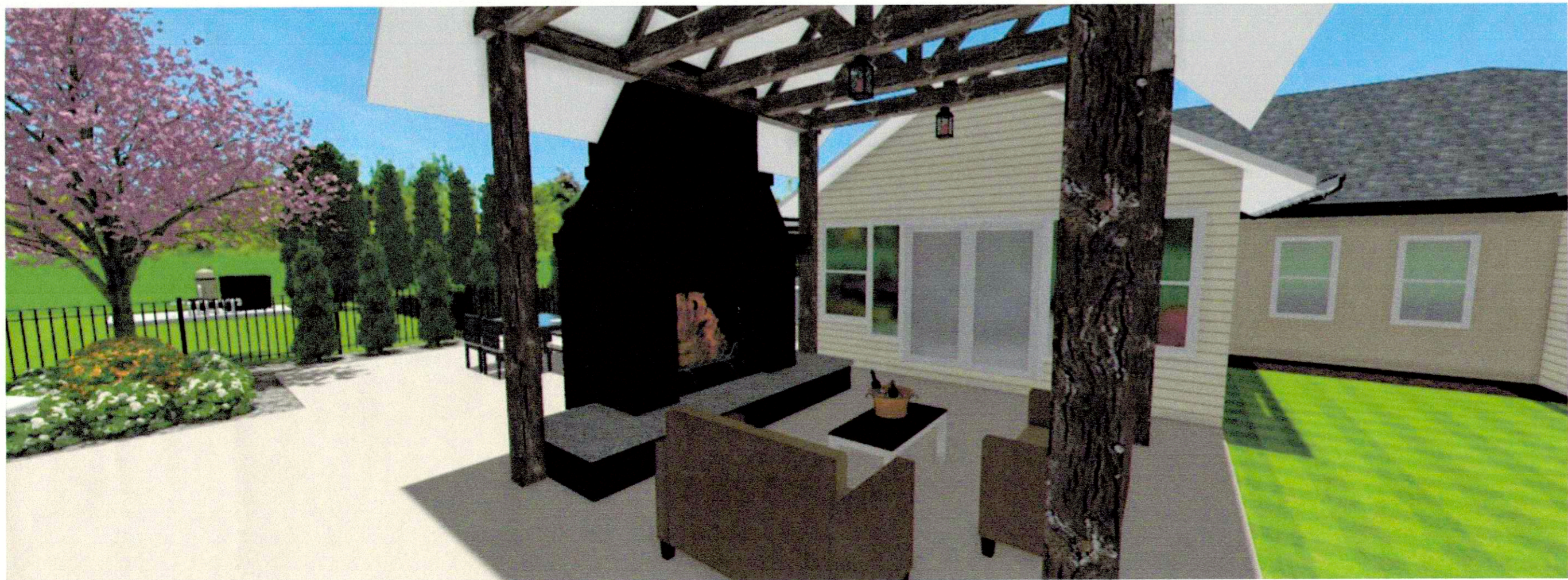
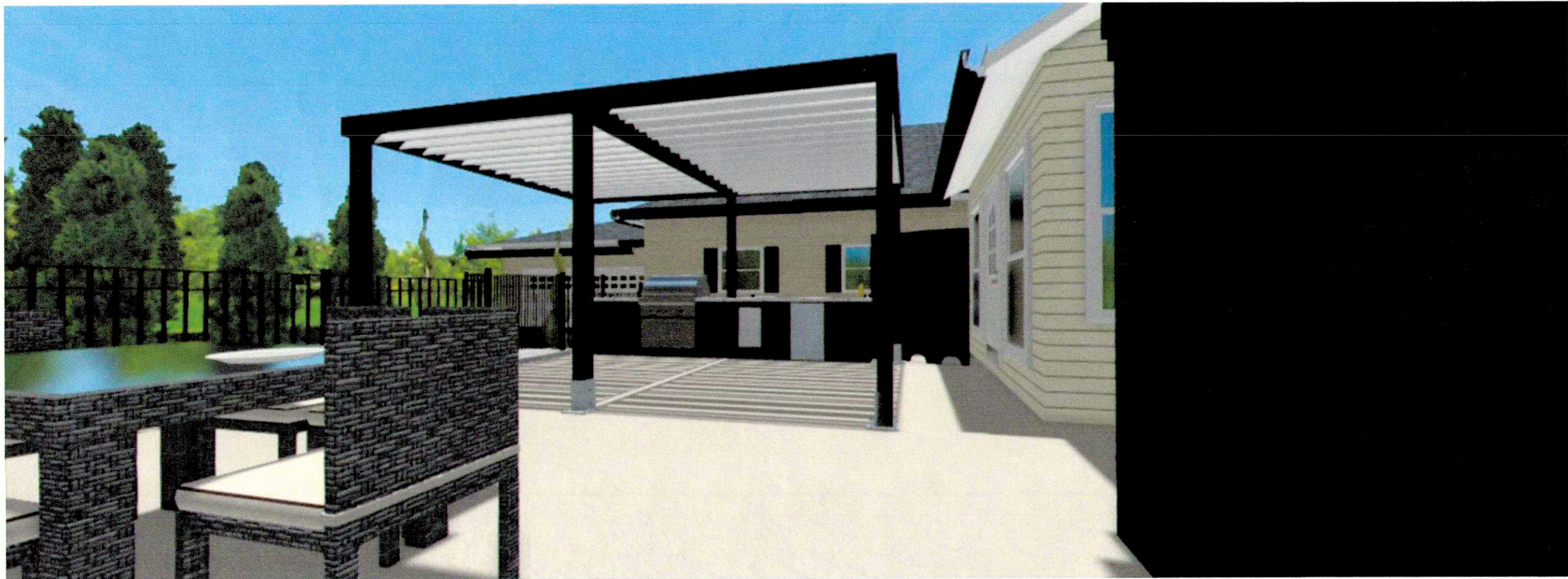
PLAN DETAILS

SHEET A1

JOB LOCATION

LOCATION





**OASIS POOLS**

EXPERTS IN OUTDOOR LIVING

**BUILDER INFORMATION**

OASIS POOLS  
1488 E EDWARDSVILLE RD  
WOOD RIVER, IL 62095



JOB LOCATION

REED RESIDENCE  
2 KINGSTON MANOR  
ST. LOUIS, MO 63124

PLAN DETAILS

**SHEET A2**